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# THE UNITED STATES OF AMERICA

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May 07, 2003

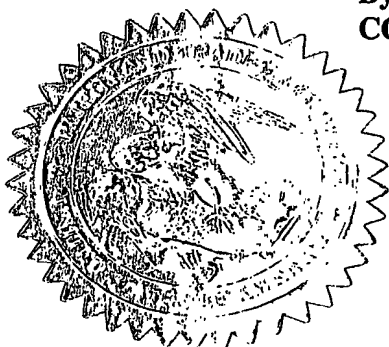
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**APPLICATION NUMBER: 60/370,771**

**FILING DATE: April 05, 2002**

**RELATED PCT APPLICATION NUMBER: PCT/US03/10381**

By Authority of the  
COMMISSIONER OF PATENTS AND TRADEMARKS




*N. Woodson*  
N. WOODSON  
Certifying Officer

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Please type a plus sign (+) inside this box → Attorney Docket No. P35032-A  
Express Mail Label No. EU206442948US**PROVISIONAL APPLICATION FOR PATENT COVER SHEET**  
This is a request for filing a PROVISIONAL APPLICATION FOR PATENT under 37 CFR 1.53(c).10879 U.S. PTO  
69/370771  
04/05/02**INVENTOR(S)**

Given Name (first and middle [if any])	Family Name or Surname	Residence (City and either State or Foreign Country)
Seth	Houston	Pennsylvania

☐ Additional inventors are being named on the \_\_\_\_\_ separately numbered sheets attached hereto**TITLE OF THE INVENTION (280 characters max)**

METHOD OF REPORTING AND DELIVERING PHARMACEUTICAL MARKET RESEARCH-DATA

Direct all correspondence to:

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**ENCLOSED APPLICATION PARTS (check all that apply)**☒ Specification Number of Pages8☐ CD(s), Number☒ Drawing(s) Number of Sheets1☐ Other (specify)☐ Application Data Sheet. See 37 CFR 1.76**METHOD OF PAYMENT OF FILING FEES FOR THIS PROVISIONAL APPLICATION FOR PATENT**☐ Applicant claims small entity status. See 37 CFR 1.27.☒ A check or money order is enclosed to cover the filing fees☐ The Commissioner is hereby authorized to charge filing  
fees or credit any overpayment to Deposit Account Number:02-4377☐ Payment by credit card. Form PTO-2038 is attached.FILING FEE  
AMOUNT (\$)160The invention was made by an agency of the United States Government or under a contract with an agency of the  
United States Government.☒ No.☐ Yes, the name of the U.S. Government agency and the Government contract number are: \_\_\_\_\_

Respectfully submitted,

SIGNATURE

TYPED or PRINTED NAME Paul A. RagusaTELEPHONE (212) 408-2500

Date: April 5, 2002

REGISTRATION NO.  
(if appropriate)  
Docket Number:38,587P35032-A**USE ONLY FOR FILING A PROVISIONAL APPLICATION FOR PATENT**



**BAKER BOTTS LLP****FEE TRANSMITTAL  
for FY 2001**

Patent fees are subject to annual revision.

**Complete If Known**

Application Number	
Filing Date	April 5, 2002
First Named Inventor	Seth Houston
Examiner Name	
Group Art Unit	
Attorney Docket No.	P35032-A

**TOTAL AMOUNT OF PAYMENT (\$ 160)****METHOD OF PAYMENT**

- 1.
- ☒
- The Commissioner is hereby authorized to charge indicated fees and credit any overpayments to:

Deposit Account Number	02-4377
Deposit Account Name	Baker Botts LLP

☒ Charge Any Additional Fee Required Under 37 CFR 1.16 and 1.17☐ Applicant claims small entity status. See 37 CFR 1.27

- 2.
- ☒
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☒ Check ☐ Credit card ☐ Money Order ☐ Other**FEE CALCULATION****1. BASIC FILING FEE**

Large Entity Fee (\$)	Small Entity Fee (\$)	Fee Description	Fee Paid
740	370	Utility filing fee	
330	165	Design filing fee	
510	255	Plant filing fee	
740	370	Reissue filing fee	
160	80	Provisional filing fee	160

**SUBTOTAL (1) (\$ 160)****2. EXTRA CLAIM FEES**

Total Claims	Extra Claims	Fee from below	Fee Paid
20**	= 0	X	= 0
3**	= 0	X	= 0

Multiple Dependent

Large Entity Fee (\$)	Small Entity Fee (\$)	Fee Description
18	9	Claims in excess of 20
84	42	Independent claims in excess of 3
280	140	Multiple dependent claim, if not paid
84	42	** Reissue independent claims over original patent
18	9	** Reissue claims in excess of 20 and over original patent

**SUBTOTAL (2) (\$ 0)**

\*\*or number previously paid, if greater; For Reissues, see above

**FEE CALCULATION (continued)****3. ADDITIONAL FEES**

Large Entity Fee (\$)	Small Entity Fee (\$)	Fee Description	Fee Paid
130	65	Surcharge - late filing fee or oath	
50	25	Surcharge - late provisional filing fee or cover sheet	
130	130	Non-English specification	
2,520	2,520	For filing a request for ex parte reexamination	
920*	920*	Requesting publication of SIR prior to Examiner action	
1,840*	1,840*	Requesting publication of SIR after Examiner action	
110	55	Extension for reply within first month	
400	200	Extension for reply within second month	
920	460	Extension for reply within third month	
1,440	720	Extension for reply within fourth month	
1,960	980	Extension for reply within fifth month	
320	160	Notice of Appeal	
320	160	Filing a brief in support of an appeal	
280	140	Request for oral hearing	
1,510	1,510	Petition to institute a public use proceeding	
110	55	Petition to revive - unavoidable	
1,280	640	Petition to revive - unintentional	
1,280	640	Utility issue fee (or reissue)	
460	230	Design issue fee	
620	310	Plant issue fee	
130	130	Petitions to the Commissioner	
50	50	Processing fee under 37 CFR 1.17(a)	
180	180	Submission of Information Disclosure Stmt	
40	40	Recording each patent assignment per property (times number of properties)	
740	370	Filing a submission after final rejection (37 CFR § 1.129(a))	
740	370	For each additional invention to be examined (37 CFR § 1.129(b))	
740	370	Request for Continued Examination (RCE)	
900	900	Request for expedited examination of a design application	

Other fee (specify)

\*Reduced by Basic Filing Fee Paid

**SUBTOTAL (3) (\$ 0)****SUBMITTED BY**Name (Print/Type) **Paul A. Ragusa**Registration No. **38,587**  
(Attorney/Agent)**Complete (if applicable)**Telephone **(212) 408-2500**

Signature

Date **April 5, 2002****WARNING:** Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

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NEW YORK, NEW YORK 10112

TO ALL WHOM IT MAY CONCERN:

Be it known that WE, Seth Houston, Fred Figg and Domenic Bonanni, citizens of the United States, residing in Pennsylvania have invented an improvement in:

**METHOD OF REPORTING AND DELIVERING PHARMACEUTICAL MARKET  
RESEARCH-DATA**

of which the following is a

**SPECIFICATION**

**Summary and Objects of the Invention**

It is therefore an object of the present invention to provide a system that supplies a question and answer format and presents the answers to specific business questions asked by the pharmaceutical marketing individual over the internet. Another object of the present invention is to provide a system that allows new business questions to be added without redeveloping the entire application. Another object of the present invention is to integrate many different audits and therefore providing answers to complex business questions. Still another object of the present invention is to provide a system that integrates service and support into the product design. Another object of the present invention is a method for providing estimates with confidence intervals for daily prescription activity. Another object of the present invention is a method for providing forecasting for weekly and monthly prescription activity. And yet another object of the present invention is to provide a system which is built around an e-business

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framework so that central customer records, client management and incident management are part of the market research suite of applications.

In one exemplary embodiment of the present invention, a system is provided that provides answers to pharmaceutical marketing business questions selected by a user in a question and answer format. The system utilizes an e-business framework in order to manage the user session, track usage, manage permissions and access different applications which are active in the system. Furthermore, the e-business framework allows for client management through service and support features that directly access the specific question and question parameters, and allows the user to view the progress of specific incidents on-line. The system also provides for an iterative development approach where a client's pharmaceutical market research business questions can be incorporated into the question and answer format for viewing.

### **Brief Description of the Drawings**

For a more complete understanding of the present invention and its advantages, reference is now made to the following description, taken in conjunction with the accompanying drawings, in which:

Figure 1 shows a logical view of the Marketing Effectiveness Suite according to an exemplary embodiment of the present invention.

### **Detailed Description of the Invention**

Figure 1 illustrates the logical view of a Marketing Effectiveness Suite 100. The Marketing Effectiveness Suite 100 allows a customer to track the performance of individual products or a group of products through a standardized customer interface 102. The customer

logs onto an internet site using a remote terminal 104 and a username-password combination.

Once the user logs onto the internet site, the user may ask a question, selected from a customized group of questions, which is answered based on audit data pertaining to individual products.

Audit data is collected from sources such as the National Journal Audit, the Direct to Consumer Audit, the Hospital and Doctor Integrated Services Audit, the National Disease and Therapeutic Index Audit, the Chemical Audit, the Daily Rx Audit, the Midas Audit, the Write Decision Audit, and the like, most of which are currently available from IMS Health, Inc., 1499 Post Road, Fairfield, CT 06430. The audit data reflects various aspects of individual products, including amount of prescriptions filled for a drug product, number of times prescribed for a drug product, and the like. The audit data is stored on a mainframe computer, such as an International Business Machines (hereinafter "IBM") mainframe, 106 in audit specific mainframe data sets which are stored in a database program, such as IBM D-Base, a database program available from IBM Corporation, 1133 Westchester Avenue, White Plains, New York 10604. The audit specific mainframe data sets are stored in a hierarchical/flat file format. The audit specific mainframe data sets are downloaded to a relational data warehouse 108 at regular intervals.

The relational data warehouse 108 is a server running an operating system, such as a UNIX operating system. The relational data is stored in a database program, such as an Oracle v9i database, available from Oracle Corporation, 500 Oracle Parkway, Redwood Shores, CA 94065. This database may also be called the market research relational database 110 (hereinafter "MRR"). The MRR 110 provides market definition data, prescription activity data, competitive intelligence data, and market assessment data to a data layer 120.



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The data layer 120 provides all information to a data access layer 140 and a framework layer 150. The data layer 120 contains SQL databases which contain information which is necessary for the framework layer 150 to prepare presentations to be presented to the customer. The data layer 120 includes a security database 122 containing security information, a service type database 124 containing service type information, a log database 126 containing log information, a question database 128 containing question information, a market definition database 130 containing market definition information, a prescription activity database 132 containing prescription activity information, a competitive intelligence database 134 containing competitive intelligence information, and a market assessment database 136 containing market assessment information. The data layer 120 provides information to the data access layer 140 and the framework layer 150 in response to SQL queries provided to individual databases by applications running in the data access layer 140 and the framework layer 150.

The data access layer 140 includes a business intelligence management tool 142 that manages queries issued by a question and answer framework application 152 and, upon receipt of data from the data layer 120, formats a report. The business intelligence management tool 142, such as that available from MicroStrategy, 1861 International Drive, McLean, VA 22102, may receive a query from the question and answer framework application 152. The business intelligence management tool 142 parses the query issued by the question and answer framework application 152 and issues the appropriate SQL queries to one or more appropriate databases 130, 132, 134, 136 in the data layer 120. For example, in a first example if a particular query received by the business intelligence management tool 142 requires prescription activity information, the business intelligence management tool 142 issues an appropriate query to the

prescription activity database 132. The SQL databases 130, 132, 134, 136 return data sets to an appropriate application in the framework layer 150, which is specified in the SQL query.

The framework layer 150 includes a group of applications which provide an interface between the standard customer interface 102 and the data warehousing systems. The group of applications include a security application 154, a service type application 156, an online framework application 158, the question and answer framework application 152, a market definition product grouping application 164, a prescription activity application 160, a competitive intelligence application 166, a market assessment application 162, and an prescription estimation application 168. The market definition product grouping application 164, the prescription activity application 160, the competitive intelligence application 166, the market assessment application 162, and the prescription estimation application 168 work with the business intelligence management tool 142 and the SQL databases 130, 132, 134, 136 to create the report. For example, in the first example, the query sent by the business intelligence management tool 142 causes the prescription activity database 132 to generate a data set for the prescription activity application 160, which is then sent to the prescription activity application 160, and the business intelligence management tool 142 and the prescription activity database 132 generate the report.

The prescription activity application 160 provides metropolitan statistical area level, metropolitan area level, state level, and national level information for prescription activity. The prescription activity application 160 also provides integrated reporting of promotional expenditures, sales figures, current inventory levels, withdrawal from inventory, elements of growth measurements, and on-going product performance tracking. The prescription estimation application 168 provides daily estimates of prescription activity displayed with confidence

levels, and provides a weekly and monthly forecasting ability to provide estimates for end of week and end of month sales with confidence levels. The confidence levels describe the perceived accuracy of the estimate. The competitive intelligence application 166 provides competitive benchmarking features utilizing data elements from the NPA Plus audit, the Retail and Provider Perspective audit, the Promotional Services audit, the National Disease and Therapeutic Index audit and the Formulary Focus audit, the aforementioned audits are available from IMS Health, Inc., 1499 Post Road, Fairfield, CT 06430. The market assessment application 162 allows marketers to assess market potential, understand physician prescribing and diagnosing behavior utilizing data elements from patient estimates, the Research and Development Focus audit, the Patents International audit, the NPA Plus audit, the Retail and Provider Perspective audit, the Promotional Services audit, the National Disease and Therapeutic Index audit, the Formulary Focus audit, and other data sources.

The report created by the applications 160, 162, 164, 166 and 168, the business intelligence management tool 142 and the SQL databases 130, 132, 134, 136 is displayed in the standard customer interface 102. The online framework application 158 creates the standard customer interface, which is a web page. The standard customer interface includes a login screen and an question and answer screen.

Initially, a customer navigates to the login screen of the standard customer interface 102, typically by providing a particular universal resource locator to a web browser. Once there, the customer must provide a username-password combination. This information is sent to the online framework application 158, which forwards the username and password to the security application 154. The security application 154 may be one such as Netegrity SiteMinder, which is available from Netegrity, 52 Second Ave, Waltham, MA 02451. The security

application 154 includes a username-password database, which contains a list of valid username-password combinations. The security application 154 receives the username-password combination from the online framework application and searches for a match in the username-password database. If a match is found, a successful message is passed back to the online framework application 158. If no such match is found, a failed message is passed back to the online framework application 158. If the online framework application 158 receives a failed message from the security application, the online framework application 158 denies further access to the customer who is attempting to log into the system.

Once the online framework application 158 receives the successful message from the security application 154, the online framework application 158 transmits the username-password combination supplied by the customer to the service type application 156. The service type application 156 may be any one of many customer relationship management software tools commercially available with functionality similar to Onyx CRM, which is available from Onyx Software, 3180 139th Ave SE, Suite 500, Bellevue, WA 98005-4091. The service type application 156 provides information about the customer's level of service to the online framework application 158. The online framework application 158 in turn supplies the customer's level of service to the question and answer framework application 152.

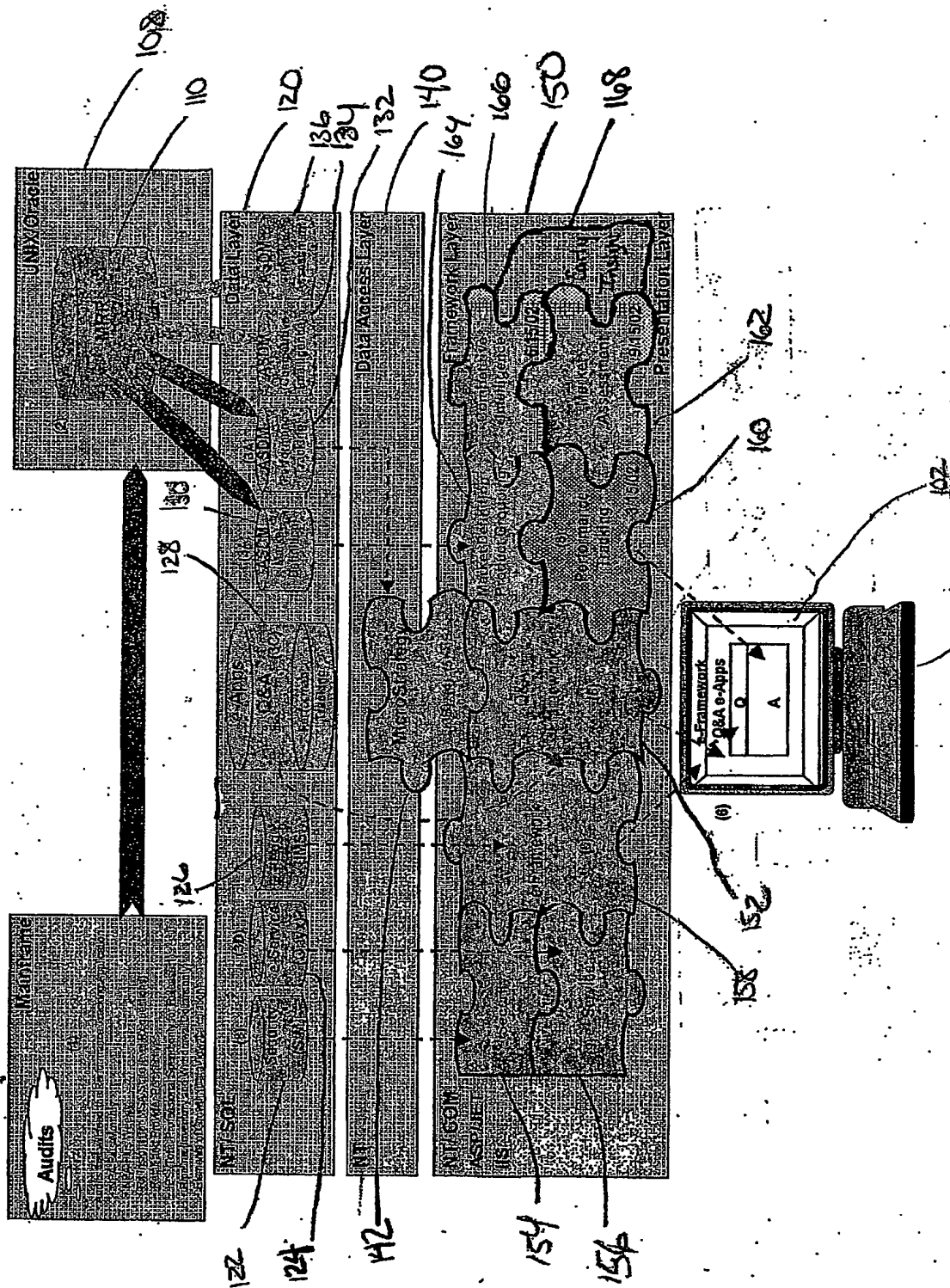
The question and answer framework application 152 forms an SQL query based on the customer's level of service, and transmits this query to the question database 128. In response to this query, the question database 128 provides a set of questions that the customer who initially provided the username-password combination is entitled to ask.

The online framework application 158 then changes the web page being presented to the customer from the login screen to the question and answer screen. Once the screen is

updated, the question and answer framework application 152 updates the question and answer screen with the set of questions provided to the question and answer framework application 152.

The customer is may choose any question from the set of questions presented in a drop down menu located in the question portion of the question and answer screen. Once the question is selected, additional drop down menus may be presented to the customer. The additional drop down menus allow the customer to select particular parameters for the question. The particular parameters allow the customer to customize the question to the customer's unique needs. By selecting certain parameters, the customer may define unique markets or product groupings. Once the question and parameters are selected, the customer clicks on a submit button and the question and answer framework application 152 forwards the selected question to the business intelligence management tool 142.

The business intelligence management tool 142 translates the selected question into one or more SQL queries. The business intelligence management tool 142 then issues these one or more SQL queries to the appropriate database in the data layer, which then returns data to the appropriate application 160, 162, 164, 166, 168. The business intelligence management tool 142 in conjunction with the market definition product grouping application 164, the prescription activity application 160, the competitive intelligence application 166, the market assessment application 162 and the prescription estimation application 168 formulate a report which is provided to an answer portion of the question and answer screen of the standardized customer interface 102. The report may incorporate a graph or a table to communicate the appropriate information in the most effective manner.



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